

Applicant: J. Thomas O'Brien
Application No.: 09/981,386

REMARKS

Claims 17 and 21-24 are currently pending in the present application. The Examiner has rejected claims 17 and 21-24 under 35 U.S.C. §103. The Applicant has amended claim 17. The Applicant submits that no new matter has been introduced into the application by this amendment and the amendment is fully supported in the specification.

Claim Rejections - 35 USC §103(a)

Claims 17 and 21-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bell (U.S. Reference No. 6,445,921) in view of Wenk (U.S. Reference No. 6,253,088), and further in view of Ostling (U.S. Reference No. 6,327,470).

In order to establish a *prima facie* case of obviousness, the Examiner must demonstrate there is a suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference teachings. Furthermore, the prior art references must teach or suggest **all** of the claim features. The Examiner is not free to pick bits and pieces from the prior art and, with the hindsight benefit of the Applicant's disclosure, attempt to reconstruct the invention. Orthopedic Equipment Inc. v. U.S., 217 U.S.P.Q. 193, 199 (Fed. Cir. 1983).

In the present invention, the wireless dual use user equipment (UE) independently switches between the cordless scheme and the cellular scheme. To switch from the cordless scheme to the cellular scheme, a hand off signal is sent and the subbase in response to the hand off signal ceases communications with the cellular base station. At that point, the UE independently initiates communication using its own modulation device with the cellular base station. Accordingly, to the user of the dual use UE and the recipient of that user's call, the transition between the cordless and cellular environment is totally transparent and handled by the UE itself.

Bell does not teach a seamless transition. According to Bell, after detection of a failed link, i.e., a dropped call, a switch between cordless and cellular systems is initiated. This 'switch' requires a break in the communication signal and a re-call.

Furthermore, Wenk teaches a means for routing calls. The subbase of Wenk, sensing that the UE is within a predefined vicinity of the subbase, sends a message to the cellular network resulting in calls intended for the UE being routed to said subbase. Once the UE is no longer in the predefined vicinity, the subbase sends a 'de-registration' message to the cellular network informing the ACRE to cease forwarding calls to the subbase. As a result, any subsequent calls will be serviced through the cellular network.

Unlike the present invention, Wenk does not address the in-call transitioning of networks.

Ostling discloses a hand-off scheme whereby a dual mode phone transitions between an end office mode and mobile mode by initiating a sequence of new calls. First, the dual mode phone initiates a new call to a servicing end office. (See column 3, lines 55 to column 4, line 1). This new call is used to send a user's mobile phone number to the user's end office. The end office then generates and sends a signaling call which includes the user's mobile phone number to a mobile service center (MSC). Thereafter, the MSC calls the dual mode phone using the provided phone number via a base station system. The dual mode phone then "answers" the call to connect to the MSC. At this point, the dual mode is simultaneously connected to both the servicing end office and the MSC. Next, the dual mode phone initiates a call transfer to transition from the fixed (end office) mode to the mobile mode. (See column 4, lines 1-16). As described by Ostling, this hand-off scheme is akin to a three-way telephone call, wherein two parties (the end office and the MSC) are simultaneously associated with a third (i.e., the dual mode phone). Once the three parties are connected, the connection between the dual mode phone and the end office is severed.

On the other hand, Applicant's invention as claimed in amended independent claim 17 recites:

Applicant: J. Thomas O'Brien
Application No.: 09/981,386

A wireless dual use user equipment (UE) capable of operating in a cordless and cellular environment, the dual use user equipment comprising:

a modulation and demodulation device for modulating/demodulating data using a plurality of modulation/demodulation schemes, the plurality of modulation/demodulation schemes comprise a cordless scheme for communicating with a sub base and a cellular scheme for communicating with a base station;

a modulation and demodulation controller for switching the modulation/demodulation scheme of the modulation/demodulation device between the cordless scheme and the cellular scheme such that a transition between said cordless and cellular schemes is transparent to a user sending or receiving a communication signal from said dual use UE; the modulation and demodulation controller initiating operation in the cellular environment by sending a handoff signal to a sub base responsive to a determination that said UE is leaving a cordless environment and switching to the cellular scheme; whereby the sub base in response to the sent handoff signal ceases communications with a cellular base station and whereby in response to the ceased communications between the sub base and the cellular base station, the modulation and demodulation controller of the UE switches the modulation/demodulation scheme of the UE from the cordless scheme to the cellular scheme, thereby initiating communication of the UE directly with the cellular base station.

which is neither taught nor suggested by the Bell, Wenk, or Ostling references.

Accordingly, Applicant's amended independent claim 17 is patentable over Bell, Wenk, and Ostling, whether taken alone or in any combination with one another.

Applicant: J. Thomas O'Brien
Application No.: 09/981,386

Claims 21-24 depend, either directly or indirectly, from the Applicant's patentable amended independent claim 17 and are therefore patentable for at least the same reasons as patentable amended independent claim 17.

Applicant: J. Thomas O'Brien
Application No.: 09/981,386

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the present application, including claims 17 and 21 - 24, is in condition for allowance and a notice to that effect is respectfully solicited.

Respectfully submitted,

J. Thomas O'Brien

By Thomas A. Mattioli
Thomas A. Mattioli
Registration No. 56,773

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103
Telephone: (215) 568-6400
Facsimile: (215) 568-6499

TAM/yil